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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,223

02/14/2006

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EXAMINER

DAGLAWI, AMAR A

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

04/15/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,223	Applicant(s) ZIRWAS, WOLFGANG	
	Examiner AMAR DAGLAWI	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/23/2009 has been entered.

Response to Amendment

2. Claims 12-22 are cancelled. Claims 23-32 are added. Claims 23-32 are pending in the current communication.

Response to Arguments

3. Applicant's arguments with respect to claims 23-32 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 23-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Hokao (US 7,272,125 B2).

With respect to claim 23, Hokao teaches A method, comprising:
receiving a signal in a receiver station via a first transmitting channel from a sending station; determining a channel parameter of the first transmitting channel using the receiver station; adjusting a symbol parameter of a first data symbol to be transmitted from the receiver station to the sending station via a second transmitting channel, the adjusting based on a function of a value of the channel parameter of the first transmitting channel; and changing a symbol parameter of a second data symbol to be transmitted from the receiver station to the sending station by a mathematical operation opposite from adjusting of a the symbol parameter of the first data symbol (abstract, Fig.4, Fig.5, col.3, lines 40-67, col.4, lines 1-67, col.5, lines 1-67, col.6, lines 1-67, col.7, lines 1-20).

With respect to claim 24, Hokao further teaches transmitting the first and second data symbols from the receiver station to the sending station; and ascertaining at the sending station the channel parameter of the first transmitting channel determined by the receiver station, based on the first and second data symbol received at the sending station (abstract, Fig.4, Fig.5, col.3, lines 40-67, col.4, lines 1-67, col.5, lines 1-67, col.6, lines 1-67, col.7, lines 1-20).

With respect to claim 25, Hokao further teaches the channel parameter of the first transmitting channel is at least one of a phase parameter and an amplitude

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parameter (abstract, Fig.4, Fig.5, col.3, lines 40-67, col.4, lines 1-67, col.5, lines 1-67, col.6, lines 1-67, col.7, lines 1-20).

With respect to claim 26, Hokao further teaches adjusting includes changing the symbol parameter of the first data symbol to be transmitted from the receiver station by at least one of addition and subtraction of the value of the channel parameter of the first transmitting channel (abstract, Fig.4, Fig.5, col.3, lines 40-67, col.4, lines 1-67, col.5, lines 1-67, col.6, lines 1-67, col.7, lines 1-20).

With respect to claim 27, Hokao further teaches the first and second data symbol transmitted from the receiver station are pilot symbols (abstract, Fig.4, Fig.5, col.3, lines 40-67, col.4, lines 1-67, col.5, lines 1-67, col.6, lines 1-67, col.7, lines 1-20).

6. With respect to claim 28, Hokao further teaches the first and second data symbols transmitted from the receiver station are pilot symbols (abstract, Fig.4, Fig.5, col.3, lines 40-67, col.4, lines 1-67, col.5, lines 1-67, col.6, lines 1-67, col.7, lines 1-20).

7. With respect to claim 29, Hokao further teaches a plurality of available transmitting channels exist for transmission from the sending station to the receiver station, and said receiving, determining, adjusting, transmitting and ascertaining are repeated using each of the available transmitting channels as the first transmitting channel (abstract, Fig.4, Fig.5, col.3, lines 40-67, col.4, lines 1-67, col.5, lines 1-67, col.6, lines 1-67, col.7, lines 1-20).

8. With respect to claim 30, Hokao further teaches the receiver station has a plurality of receiving antennas and/or the sending station has a plurality of sending

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antennas, and one of the first transmitting channels is situated between one of the sending antennas and one of the receiving antennas (abstract, Fig.4, Fig.5, col.3, lines 40-67, col.4, lines 1-67, col.5, lines 1-67, col.6, lines 1-67, col.7, lines 1-20).

With respect to claim 31, Hokao teaches A receiver station for a radio communication system having a sending station; comprising:

9. a receiving unit receiving a signal from the sending station via a first transmitting channel; a determination unit determining a channel parameter of the first transmitting channel; an adjustment unit changing a symbol parameter of a first data symbol to be transmitted from said receiver station to the sending station via a second transmitting channel, the adjustment unit changing the symbol parameter of the first data symbol based on a function of a value of the channel parameter of the first transmitting channel; and a changing unit changing a symbol parameter of a second data symbol to be transmitted from the receiver station to the sending station by a mathematical operation opposite to the changing of the first data symbol (abstract, Fig.4, Fig.5, col.3, lines 40-67, col.4, lines 1-67, col.5, lines 1-67, col.6, lines 1-67, col.7, lines 1-20).

With respect to claim 32, Hokao teaches A sending station for a radio communication system having at least one receiver station, comprising:

a transmission unit sending a signal via a first transmitting channel to the receiver station; a receiver unit receiving from the receiver station a first data symbol having a first symbol parameter adjusted for communication as a function of a value of a channel parameter of the first transmitting channel and a second data symbol having a second

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symbol parameter adjusted for communication according to a mathematical operation opposite to the adjusting of the first symbol parameter; and an ascertainment unit ascertaining the channel parameter based on the first and second data symbol received from the receiver unit (abstract, Fig.4, Fig.5, col.3, lines 40-67, col.4, lines 1-67, col.5, lines 1-67, col.6, lines 1-67, col.7, lines 1-20).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMAR DAGLAWI whose telephone number is (571)270-1221. The examiner can normally be reached on Monday- Friday (7:30 AM- 5:00 AM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NGUYEN DUC can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amar Daglawi

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Examiner
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/Amar Daglawi/
Examiner, Art Unit 2618

/Duc Nguyen/
Supervisory Patent Examiner, Art Unit 2618